

Assessment

Chapter Test B

Classification

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. The practice of naming and classifying organisms is called
a. binomial nomenclature. c. taxonomy.
b. polynomial nomenclature. d. systematics.
- _____ 2. Linnaeus developed a new naming system because
a. he disagreed with the current classifications.
b. he thought the polynomial system was too complicated.
c. the old one did not use Latin.
d. the polynomial system's descriptions were too brief.
- _____ 3. Which of the following do biologists *not* use to classify organisms?
a. homologous structures c. appearance
b. derived characters d. analogous structures
- _____ 4. An organism's scientific name consists of its
a. genus and species.
b. genus and family.
c. species and family.
d. common name and Latin name.
- _____ 5. Archaeobacteria and Eubacteria differ in all of the following *except*
a. presence or absence of a nucleus.
b. ability to survive in extreme environments.
c. kind of their genetic system.
d. composition of their cell walls.
- _____ 6. Honeybees, as members of the kingdom Animalia, are related to
a. wasps. c. spiders.
b. birds. d. All of the above
- _____ 7. Linnaeus's classification system was based on which of the following characteristics?
a. form and structure c. behavior
b. DNA d. phylogenetic relationships
- _____ 8. Convergent evolution leads to
a. shared homologous characters.
b. infertile hybrid offspring.
c. shared analogous characters.
d. fertile cladistic offspring.

Chapter Test B *continued*

- _____ 9. Classes with similar characteristics are grouped into the same
- kingdom.
 - phylum.
 - species.
 - order.
- _____ 10. Analogous characters are derived from
- a recent common ancestor.
 - inferred relationships.
 - a distant common ancestor.
 - independent sources.
- _____ 11. Biologists use cladograms to
- evaluate the importance of characters.
 - estimate the degree of difference between organisms.
 - hypothesize the sequence in which different groups evolved.
 - analyze evolutionary relationships subjectively.
- _____ 12. One of the characteristics that biologists use to classify organisms into kingdoms is
- cell type.
 - cell size.
 - body size.
 - body color.

Questions 13 and 14 refer to the table below.

Classification of Three Different Organisms				
Organism	Class	A	Family	Genus
Bacterium	Scotobacteria	Spirochaetales	Spirochaetaceae	<i>Cristispira</i>
Box elder	Dicotyledones	Sapindales	Aceraceae	<i>Acer</i>
Human	Mammalia	Primates	Hominidae	B

- _____ 13. Which level of classification is represented by the box labeled A?
- kingdom
 - phylum
 - division
 - order
- _____ 14. Which of the following best fits the box labeled B?
- sapiens*
 - Canis*
 - Homo*
 - Animalia

Chapter Test B *continued*

In the space provided, write the letter of the description that best matches each term.

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|---------------------------------|--|
| _____ 15. taxonomy | a. the most inclusive classification of organisms |
| _____ 16. binomial nomenclature | b. an organism's evolutionary history |
| _____ 17. domain | c. similarities that evolved in a common ancestor of two different groups |
| _____ 18. phylogeny | d. the practice of naming and classifying organisms |
| _____ 19. convergent evolution | e. two-word system for naming organisms |
| _____ 20. ancestral character | f. similarities that evolve in organisms that are not closely related to one another |